

respectively to each converted digital data signal, the interface being adapted to introduce into the memory array the sets of digital data in IP format, the interface being adapted to receive the at least one compressed digital image data signal in IP format, the interface being adapted to introduce into the memory array at least one set of compressed digital image data in IP format, the at least one set of compressed digital image data in IP format corresponding to the received at least one compressed digital image data signal in IP format.

22. (new) An aircraft flight data recorder according to claim 21 and further comprising:

apparatus adapted to retrieve from the memory array selected of the at least one set of compressed digital image data in IP format, the selected at least one set of compressed digital image data in IP format being at least one of: transmitted to a recipient external of the aircraft and displayed for viewing.

23. (new) An aircraft flight data recorder according to claim 21 and further comprising:

a communications interface adapted to transmit to a recipient external of the aircraft at least one of the at least one compressed digital image data signal and the at least one set of compressed digital image data, the at least one set of compressed digital image data being derived from at least one set of compressed digital image data in IP format retrieved from the memory array.

24. (new) An aircraft flight data recorder according to claim 21 and further comprising:

a processor adapted drive a memory manager to distribute to the memory array the sets of digital data in IP format and the at least one set of compressed digital image data in IP format.

25. (new) An aircraft flight data recorder according to claim 21 and further comprising:

a multiplexer in communication with the interface, the multiplexer being adapted to combine into a stream of data packets in IP format for transmission to the memory at least one of the following: the plurality of digital data signals, the sets of digital data in IP format corresponding to converted digital data signals, the at least one compressed digital image data signal in IP format, the at least one set of compressed digital image data in IP format.

26. (new) An aircraft flight data recorder according to claim 21 and further comprising:

the plurality of signals including at least one signal received from a legacy flight data acquisition system.

27. (new) An aircraft flight data recorder according to claim 21 and further comprising:

a hardened hermetic housing adapted to preserve from damage in the event of an aircraft crash the digital memory array, the preserved digital memory array subsequent to an aircraft crash permitting recovery from the memory array of the sets of digital data in IP format and the at least one set of compressed digital image data in IP format.

28. (new) An aircraft flight data recorder according to claim 27 and further comprising:

apparatus coupled to the hardened hermetic housing, the apparatus being adapted to generate a locating signal to assist in locating the hardened housing in the event of an aircraft crash.

29. (new) An aircraft flight data recorder according to claim 21 and further comprising:

the interface being an Ethernet interface adapted to receive the compressed digital image data in IP format.

30. (new) An aircraft including an aircraft flight data recorder according to claim 21.

31. (new) An aircraft flight data recorder adapted to be carried aboard an aircraft, the aircraft flight data recorder being adapted to receive from a plurality of signal generating devices located on the aircraft a plurality of digital data signals, the plurality of signal generating devices including at least one camera adapted to output at least one digital image data signal including respective image data, the image data including at least one of still frame image data and motion video data, the at least one digital image data signal being compressed at the camera by at least one compressor located at the camera, the at least one compressed digital image data signal being encoded in IP format by at least one IP encoder located at the camera, the at least one compressed digital image data signal in IP format being transmitted to the aircraft flight data recorder, the plurality of signal generating devices including at least one legacy flight data recorder system, the at least one legacy flight data recorder system not receiving the at least one compressed digital image data signal in IP format, the at least one legacy flight data recorder system outputting at least one legacy data signal, the aircraft flight data recorder comprising:

a nonvolatile memory array; and

an interface, the interface being adapted to receive the plurality of digital data signals, the interface being adapted to convert into IP format any digital data signal not received by the interface in IP format, a set of digital data in IP format corresponding respectively to each converted digital data signal, the interface being adapted to introduce into the memory array the sets of digital data in IP format, the interface being adapted to receive the at least one compressed digital image data signal in IP format, the interface being adapted to introduce into the memory array at least one set of compressed digital image data in IP format, the at least one set of compressed digital image data in IP format corresponding to the received at least one compressed digital image data signal in IP format, the interface being adapted to receive the at least one legacy data signal, the interface being adapted to convert into IP format the at least one legacy data signal, at least one set of legacy data in IP format corresponding respectively to each converted at least one legacy data signal, the interface being adapted to introduce into the memory array the at least one set of legacy data in IP format.

32. (new) An aircraft flight data recorder according to claim 31 and further comprising:

a video decoder adapted to output for display at least one of the at least one compressed digital image data signal in IP format and the at least one set of compressed digital image data in IP format, the at least one set of compressed digital image data in IP format being recalled from the memory array.

33. (new) An aircraft flight data recorder according to claim 31 and further comprising:

an external transmission interface adapted to transmit to a recipient external of the aircraft at least one of the at least one compressed digital image data signal in IP format and the at least one set of compressed digital image data in IP format, the at least one set of compressed digital image data in IP format being recalled from the memory array.

34. (new) An aircraft flight data recorder according to claim 31 and further comprising:

a processor adapted drive a memory manager to distribute to the memory array the sets of digital data in IP format, the at least one set of compressed digital image data in IP format, and the at least one set of legacy data in IP format.

35. (new) An aircraft flight data recorder according to claim 31 and further comprising:

a multiplexer in communication with the interface, the multiplexer being adapted to combine into a stream of data packets in IP format for transmission to the memory at least one of the following: the plurality of digital data signals, the sets of digital data in IP format corresponding to converted digital data signals, the at least one compressed digital image data signal in IP format, the at least one set of compressed digital image data in IP format, the at least one legacy data signal, the at least one set of legacy data in IP format.

36. (new) An aircraft flight data recorder according to claim 31 and further comprising:

a hardened hermetic housing adapted to preserve from damage in the event of an aircraft crash the digital memory array, the preserved digital memory array subsequent to an aircraft crash permitting recovery from the memory array of the sets of digital data in IP format, the at least one set of compressed digital image data in IP format, and the at least one set of legacy data in IP format.

37. (new) An aircraft flight data recorder according to claim 36 and further comprising:

apparatus coupled to the hardened hermetic housing, the apparatus being adapted to generate a locating signal to assist in locating the hardened housing in the event of an aircraft crash.

38. (new) An aircraft flight data recorder according to claim 31 and further comprising:

the interface being an Ethernet interface adapted to receive the compressed digital image data in IP format.

39. (new) An aircraft including an aircraft flight data recorder according to claim 31.

40. (new) An aircraft flight data recorder adapted to be carried aboard an aircraft, the aircraft flight data recorder being adapted to receive at least one legacy flight data signal output by a legacy flight data acquisition system, the at least one legacy flight data signal not including a compressed digital image data signal in IP format, the aircraft flight data recorder being adapted to receive from at least one camera at least one compressed digital image data signal, the aircraft flight data recorder comprising:

a nonvolatile memory array;

an interface, the interface being adapted to receive the at least one legacy flight data signal, the interface being adapted to output at least one set of legacy flight data in IP format, the at least one set of legacy flight data in IP format corresponding to the at least one legacy flight data signal received by the interface, the interface being adapted to introduce to a memory manager the at least one set of legacy flight data in IP format, the interface being adapted to receive the at least one compressed digital image data signal, the interface being adapted to output at least one set of compressed digital image data in IP format, the at least one set of compressed digital image data in IP format corresponding to the at least one compressed digital image data signal received by the interface, the interface being adapted to introduce to a memory manager the at least one set of compressed digital image data in IP format; and

a processor adapted to drive the memory manager to distribute to the memory array the at least one set of legacy flight data in IP format and the at least one set of compressed digital image data in IP format.

41. (new) An aircraft flight data recorder according to claim 40 and further comprising:

a hardened hermetic housing adapted to preserve from damage in the event of an aircraft crash the digital memory array, the preserved digital memory array subsequent to an aircraft crash permitting recovery from the memory array of the at least one set of legacy flight data in IP format and the at least one set of compressed digital image data in IP format.

42. (new) An aircraft flight data recorder according to claim 40 and further comprising:

apparatus coupled to the hardened hermetic housing, the apparatus being adapted to generate a locating signal to assist in locating the hardened housing in the event of an aircraft crash.

43. (new) An aircraft flight data recorder according to claim 40 and further comprising:

the interface being an Ethernet interface adapted to receive the compressed digital image data in IP format.

44. (new) An aircraft including an aircraft flight data recorder according to claim 31.